B. V. BIGHAM.

GRIP WHEEL.

APPLICATION FILED JUNE 15, 1908.

916,656. Patented Mar. 30, 1909.

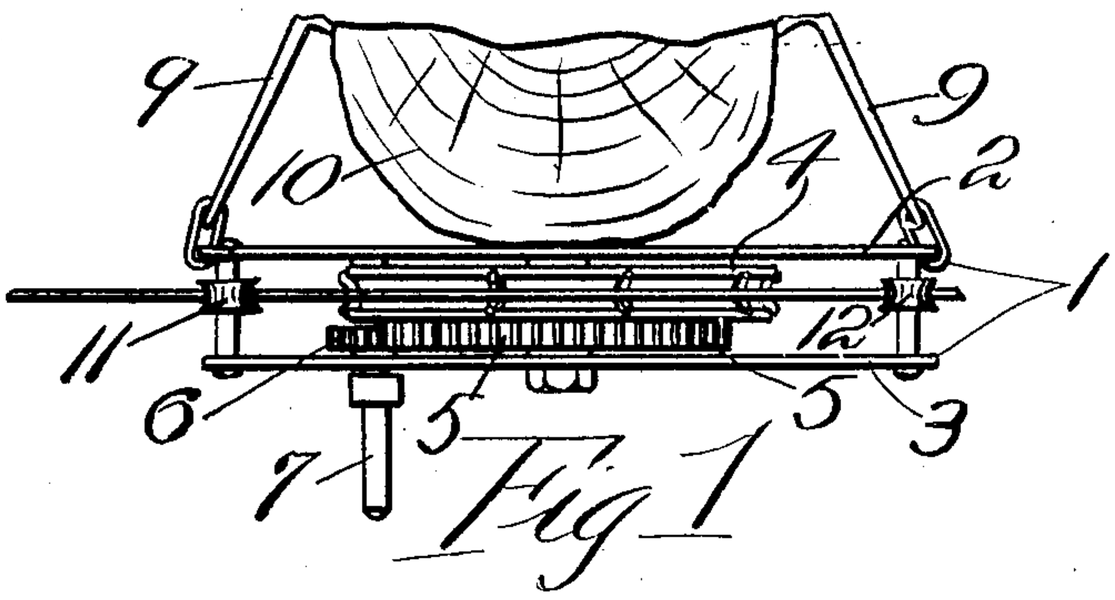
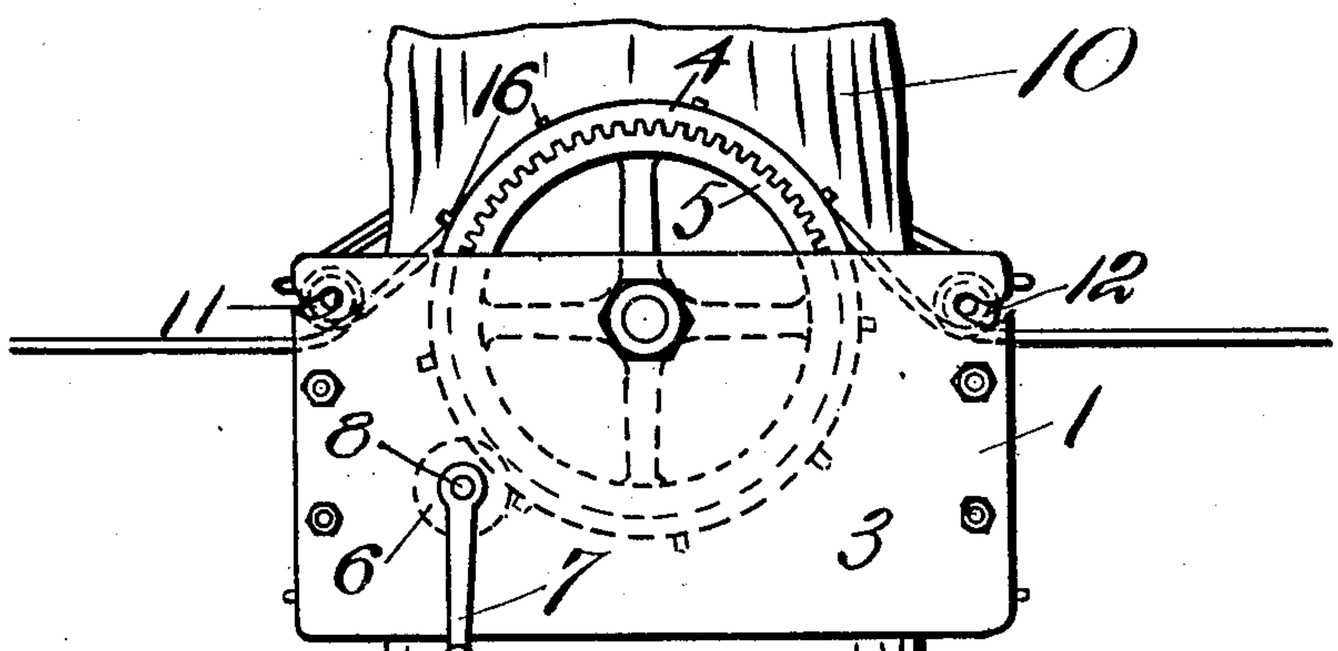


Fig 1



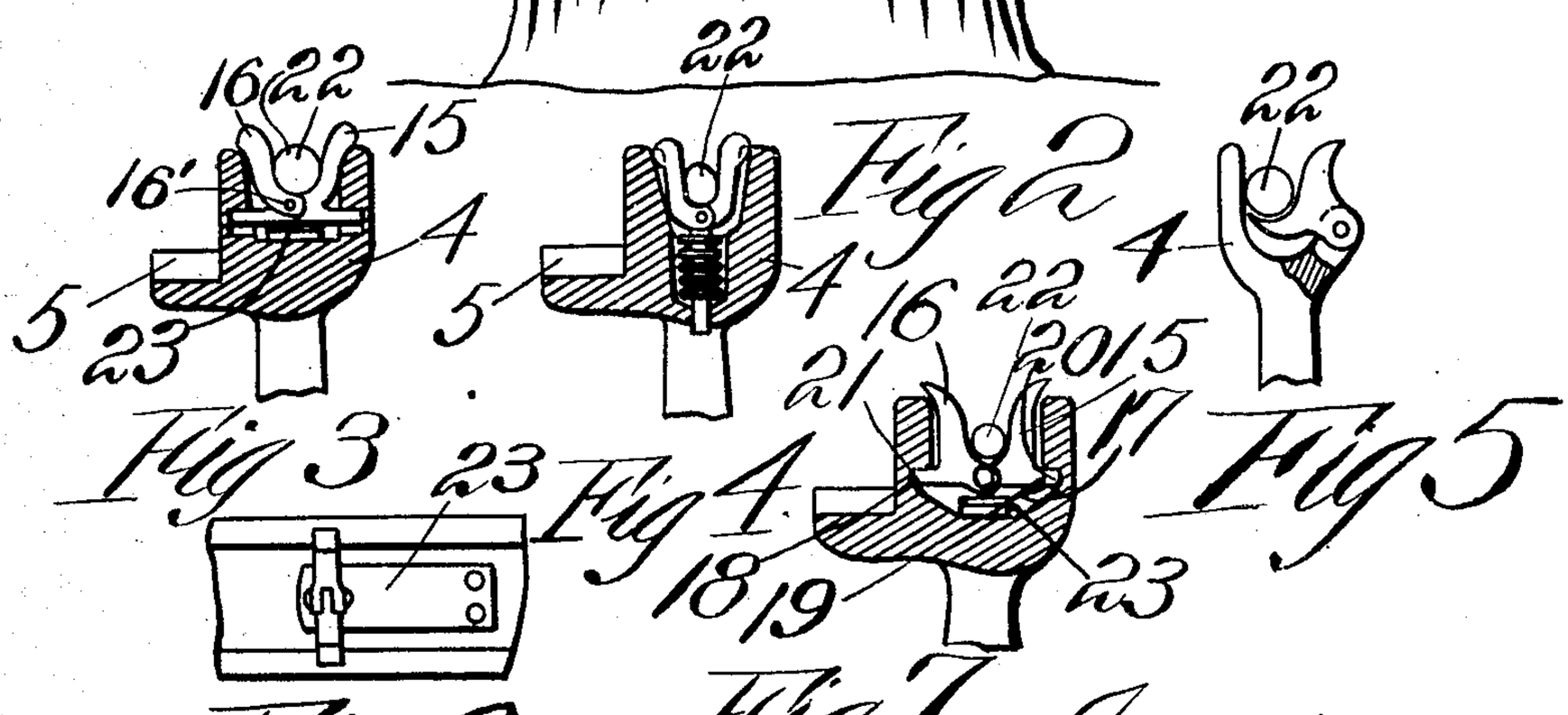


Fig 2 Fig 3 Fig 4 Fig 5 Fig 6 Fig 7

Witnesses
Chas Meyer
Bessie Brown

Inventor:
Byron Vance Bigham.
By
His Attorney.

UNITED STATES PATENT OFFICE.

BYRON VANCE BIGHAM, OF SEATTLE, WASHINGTON, ASSIGNOR OF ONE-HALF TO ALBERT ELLIOTT, OF SEATTLE, WASHINGTON.

GRIP-WHEEL.

No. 916,656. Specification of Letters Patent. Patented March 30, 1909.

Application filed June 15, 1908. Serial No. 438,681.

To all whom it may concern:

Be it known that I, BYRON VANCE BIGHAM, a citizen of the United States, residing in the city of Seattle, in the county of King and State of Washington, have invented a new and useful Grip-Wheel, of which the following is a clear and concise specification.

My invention relates to a grip wheel which may be advantageously used in handling wire rope from the drums of a logging engine. By the use of the grip wheel the time occupied in coiling the wire rope which is unwound from the engine's drum is saved. In common practice the crew of the logging engine, comprising in the neighborhood of nine men, can haul a wire cable approximately a thousand feet and it is necessary to then coil the cable which afterward is unwound and carried another thousand feet and this second leg of the course may be in a different direction from that of the first thousand feet. By the use of my device the coiling of the cable is obviated.

The objects of my invention are to provide a cable gripping wheel which will firmly hold the cable when a pressure is applied thereby on the wheel; to provide a cable gripping wheel which will operate to pull the cable and at the same time obviate the necessity of said cable being wrapped completely around said wheel; to provide an anti-slipping device for cable handling sheaves which will freely release the cable when the pressure from the cable is released. I accomplish these as well as minor objects by the construction now preferred by me and illustrated in the accompanying drawings in which—

Figure 1 is a plan view showing the application of my device; Fig. 2 is an elevation showing the application of my device; Figs. 3, 4, and 5 are detailed modifications of the grip of my device; Fig. 6 is a plan view of the preferred form of grip of my device; Fig. 7 is a detailed view of the preferred form of grip of my device.

I have provided a framework 1 comprising side pieces 2 and 3 which are adapted to support the grip wheel 4 which is secured to the gear wheel 5. Said gear wheel 5 preferably meshes with the pinion 6 which is secured to the crank 7 and shaft 8 which is journaled in said side frame pieces 2 and 3. Said frame piece 2 is provided with the dogs 9 which may be driven into a log or stump 10 which forms a support for my entire device.

To facilitate handling the cable I have provided detachable idlers 11 and 12 which are journaled in the slots which facilitate the speedy and easy removal of said idlers from the side pieces 2 and 3. Said grip wheel 4 is provided with the grip members 15 and 16 which are disposed in the groove 17 at evenly divided distances on the periphery of said wheel. The number of said grip members is somewhat dependent on the size of the wheel but the distance therebetween may vary considerably without effecting the operativeness of my device. In the preferred form the grip members 15 and 16 are pivotally connected by the bolt 16′ and are provided with the projecting bearing points 18 and 19. Said bearing points 18 and 19 are adapted to rest on the depressions 20 and 21 which are on each side of said groove 17 thus as pressure is applied by the cable 22 said pivotal connection will be depressed and the grip members 15 and 16 will be drawn together, thus firmly gripping the cable. To retract said gripping members to their normal position I have provided a spring 23 under said pivotal connection.

In Figs. 3, 4, and 5 I have shown modifications of the grip members, each of said modifications acting on the tension of the cable and being so shaped that the greater the tension the harder said members will press against the sides thereof.

I do not wish to be limited to the specific construction illustrated in the accompanying drawings and herein set forth, but wish to depart from such details as are within the scope of my invention.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States, is:

1. In a grip wheel for logging purposes, side pieces, a grooved grip wheel journaled therein having grip members on the periphery thereof, a crank and pinion journaled in said side pieces and adapted to drive said grip wheel, dogs secured to one of said side pieces and idlers journaled in slots provided in said side pieces and immediately detached from said side pieces.

2. In a grip wheel for logging, side pieces, a grooved wheel journaled therein having grip members on the periphery thereof, means whereby said grip wheel may be revolved, idlers journaled in slots provided in

said side pieces whereby the release of the pressure of the rope permits said idlers to be freely removed.

3. In a grip wheel for logging purposes, a grip wheel, idlers and side pieces adapted to journal said grip wheel having slots permitting the removal of said idlers.

4. In a grip wheel for logging purposes, a grip wheel, idlers and side pieces adapted to journal said grip wheel having curved slots whereby the pressure of the rope secures said idlers in position relative to said side pieces and permits the removal of said idlers when the pressure is released.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BYRON VANCE BIGHAM.

Witnesses:
PAUL A. TALBOT,
B. BROWN.